

In the Claims:

Please cancel claims 32-35. ✓✓

Please introduce new claims 37-49 as follows:

D2 1 ~~37~~. (New) An isolated monoclonal antibody produced by a hybridoma selected from the group consisting of A1G5 having Accession No. FERM BP-7441, D2F4 having Accession No. FERM BP-7442, and E3H8 having Accession No. FERM BP-7443 recognizing osteoclastogenesis inhibitory factor.

2 ~~38~~. (New) The isolated monoclonal antibody of claim ~~37~~¹ wherein said hybridoma is A1G5 having Accession No. FERM BP-7441.

3 ~~39~~. (New) The isolated monoclonal antibody of claim ~~37~~¹ wherein said hybridoma is D2F4 having Accession No. FERM BP-7442.

4 ~~40~~. (New) The isolated monoclonal antibody of claim ~~37~~¹ wherein said hybridoma is E3H8 having Accession No. FERM BP-7443.

5 ~~41~~. (New) An assay kit for determination of osteoclastogenesis inhibitory factor protein concentration, the assay kit comprising at least one monoclonal antibody produced by a hybridoma selected from the group consisting of A1G5 having Accession No. FERM BP-7441, D2F4 having Accession No. FERM BP-7442, and E3H8 having Accession No. FERM BP-7443.

6 ~~42~~. (New) The assay kit of claim ~~41~~⁵ wherein said hybridoma is A1G5 having Accession No. FERM BP-7441.

7 ~~43~~. (New) The assay kit of claim ~~41~~⁵ wherein said hybridoma is D2F4 having Accession No. FERM BP-7442.

8 ~~44~~. (New) The assay kit of claim ~~41~~⁵ wherein said hybridoma is E3H8 having Accession No. FERM BP-7443.

H 9 ~~45~~. (New) ~~Hybridoma~~^{A hybridoma} selected from the group consisting of A1G5 having Accession No. FERM BP-7441, D2F4 having Accession No. FERM BP-7442, and E3H8 having Accession No. FERM BP-7443.
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10 ~~46~~. (New) The hybridoma of claim ~~45~~⁹ wherein said hybridoma is A1G5 having Accession No. FERM BP-7441.

D2 11 ~~47~~. (New) The hybridoma of claim ~~45~~⁹ wherein said hybridoma is D2F4 having Accession No. FERM BP-7442.

12 ~~48~~. (New) The hybridoma of claim ~~45~~⁹ wherein said hybridoma is E3H8 having Accession No. FERM BP-7443.

Sub E1 49. (New) A monoclonal antibody which binds to osteoclastogenesis inhibitory factor protein, comprising:

- (a) molecular weights as determined by SDS-polyacrylamide gel electrophoresis (SDS-PAGE) of approximately 60 kD under reducing conditions, and approximately 60 kD (a monomer) and 120 kD (a homodimer) under non-reducing conditions;
- (b) high affinity to cation-exchange resins and heparin derivatives;
- (c) inhibitory activity for osteoclast differentiation and/or maturation, wherein said activity is decreased by heating said protein at about 70°C for about 10 min. or at about 56°C for about 30 min., and wherein said activity is lost by heating at about 90°C for about 10 min.; and
- (d) an internal amino acid sequence as provided in SEQ. ID NOS. 1, 2 or 3;

wherein said monoclonal antibody comprises a binding site selected from the group consisting of A1GF having Accession No. FERM BP-7441, D2F4 having Accession No. FERM BP-7442, and E3H8 having Accession No. FERM BP-7443 binding sites.--

REMARKS

Status of the Claims

Claims 32-35 are pending in the above-referenced application. Claims 37-49 are introduced herein. Claims 32-35 are canceled. Upon entry of this paper, claims 37-49 will be pending in the instant application.

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